

Amendments to Claims

Please amend the claims as indicated in the listing that follows, which listing supersedes and replaces all prior listings of claims:

1. (Presently Amended) A circuit board assembly comprising,

- A. a board having at least two circuit assemblies parts thereon,
- B. each circuit assembly including part having one or more circuit elements disposed within a plenum that is associated with that respective circuit assembly,
- C. each plenum having (i) an air flow inlet edge through which cooling air flow is received, and (ii) an air flow outlet edge through which the air flow exits, and
- B. each circuit assembly part being disposed on opposing sides of a central source of cooling air for the circuit board assembly.

2. (Presently Amended) The circuit board assembly of claim 1, comprising a panel that provides any of mechanical protection and electromagnetic interference (EMI) protection when the circuit board assembly is operationally coupled in a slot in a chassis.

3. (Presently Amended) The circuit board assembly of claim 1, wherein the panel comprises an inlet for cooling air.

4. (Presently Amended) The circuit board assembly of claim 3, wherein the central source of cooling air comprises the panel inlet.

5. (Presently Amended) The circuit board assembly of claim 4, wherein the panel inlet is disposed in a central region of the panel.

6. (Presently Amended) The circuit board assembly of claim 3, wherein the panel inlet is substantially aligned with an air flow inlet of a chassis to which the circuit board assembly is operationally coupled.

7. (Presently Amended) A circuit board assembly comprising,

- A. a board having at least two circuit assemblies parts thereon,
- B. each circuit assembly including part having one or more circuit elements disposed within a plenum associated with that respective circuit assembly.
- C. each plenum having (i) an air flow inlet edge through which cooling air flow is received, (ii) an air flow outlet edge through which the air flow exits, and (iii) one or more flow-diverting elements that define, at least in part, impedance to the air flow,
- D. each circuit assembly part being disposed on opposing sides of a central source of cooling air for the circuit board assembly.

8. (Presently Amended) The circuit board assembly of claim 7, wherein one or more of the flow-diverting elements are disposed nearer one of the air flow inlet and air flow outlet edges of the respective circuit assembly part than the other of those edges of that circuit assembly part.

9. (Presently Amended) The circuit board assembly of claim 7, wherein one or more of the flow-diverting elements comprises a heat dissipative element.

10. (Presently Amended) The circuit board assembly of claim 9, wherein the heat dissipative element is mounted on any of a substrate, cold plate or circuit component that comprise the circuit board assembly.

11. (Presently Amended) The circuit board assembly of claim 7, comprising a cover affixed to the circuit board assembly, the cover defining at least one of the aforesaid plenums a plenum in a region of an aforesaid part of the circuit board.

12. (Presently Amended) The circuit board assembly of claim 7, comprising at least two covers, each defining a respective one of the aforesaid plenums in a region of a respective aforesaid circuit assembly part of the circuit board.

13. (Presently Amended) The circuit board assembly of claim 11, wherein one or more of the flow-diverting elements are disposed in the plenum.

14. (Presently Amended) The circuit board assembly of claim 13, wherein one or more flow-diverting elements are adapted to shape an air flow pattern within the plenum.

15. (Presently Amended) A circuit board assembly comprising,

- A. a board having at least two circuit assemblies parts thereon,
- B. each circuit assembly including part having one or more circuit elements disposed within a plenum that is associated with that respective circuit assembly.
- C. each plenum having (i) an air flow inlet edge through which cooling air flow is received, and (ii) an air flow outlet edge through which the air flow exits, and (iii) one or more flow-diverting elements that define, at least in part, that circuit assembly's part's impedance to air flow in the chassis, wherein those one or more flow-diverting elements are adapted so that the impedance of that circuit assembly part is sized in relation to that one or more further circuit boards a chassis in which the circuit board assembly is mounted,
- D. each circuit assembly part being disposed on opposing sides of a central source of cooling air for the circuit board assembly.

16. (Presently Amended) The A-circuit board assembly of claim 15, the further improvement wherein the flow-diverting element comprises a heat dissipative element.

17. (Presently Amended) The A-circuit board assembly of claim 16, wherein the heat dissipative element is mounted on any of a substrate, cold plate or circuit component that comprise the circuit board assembly.

18. (Presently Amended) The A-circuit board assembly of claim 15, the further improvement comprising a cover affixed to the circuit board assembly, the cover defining at least one of the aforesaid plenums, a plenum being defined in a region between the cover and at least one of the aforesaid parts.

19. (Presently Amended) The A-circuit board assembly of claim 18, the further improvement wherein one or more of the flow-diverting elements are disposed in the plenum.

20. (Presently Amended) The A-circuit board assembly of claim 18, wherein one or more flow-diverting elements are adapted to shape an air flow pattern within the plenum.
21. (Presently Amended) The A-circuit board assembly of claim 18, where at least one flow-diverting element is adapted to divert air flow to/from components or regions of the board requiring greater/less air flow.
22. (Presently Amended) The A-circuit board assembly of claim 18, wherein the cover is removably coupled to the circuit board.
23. (Presently Amended) The A-circuit board assembly of claim 18, wherein the cover is substantially planar.
24. (Presently Amended) The A-circuit board assembly of claim 18, wherein the cover is any of sized and shaped substantially similarly to one or more of the aforesaid circuit assemblies parts.
25. (Presently Amended) A digital data processor comprising
 - a chassis,
 - one or more circuit boards disposed in the chassis, each circuit board comprising,
 - at least two circuit assemblies parts, each circuit assembly part havingone or more circuit elements disposed within a plenum that is associated with that respective circuit assembly, each plenum having (i) an air flow inlet edge through which cooling air flow is received, and (ii) an air flow outlet edge through which the air flow exits, and (iii) one or more flow-diverting elements that define, at least in part, that circuit assembly's part's impedance to air flow in the chassis, wherein those one or more flow-diverting elements are adapted so that the impedance of that part is sized in relation to that one or more further circuit boards in the chassis,
 - each circuit assembly part being disposed on opposing sides of a central source of cooling air for the circuit board.

26. (Presently Amended) The digital data processor of claim 25, comprising a panel that provides any of mechanical protection and electromagnetic interference (EMI) protection when the circuit board is operationally coupled in a slot in the chassis.
27. (Presently Amended) The digital data processor of claim 25, wherein the panel comprises an inlet for cooling air.
28. (Presently Amended) The digital data processor of claim 27, wherein the central source of cooling air comprises the panel inlet.
29. (Presently Amended) The digital data processor of claim 28, wherein the panel inlet is disposed in a central region of the panel.
30. (Presently Amended) The digital data processor of claim 27, wherein the panel inlet is substantially aligned with an air flow inlet of the chassis.